

AIRFIX

ONE SHILLING MONTHLY

magazine

For plastic modellers

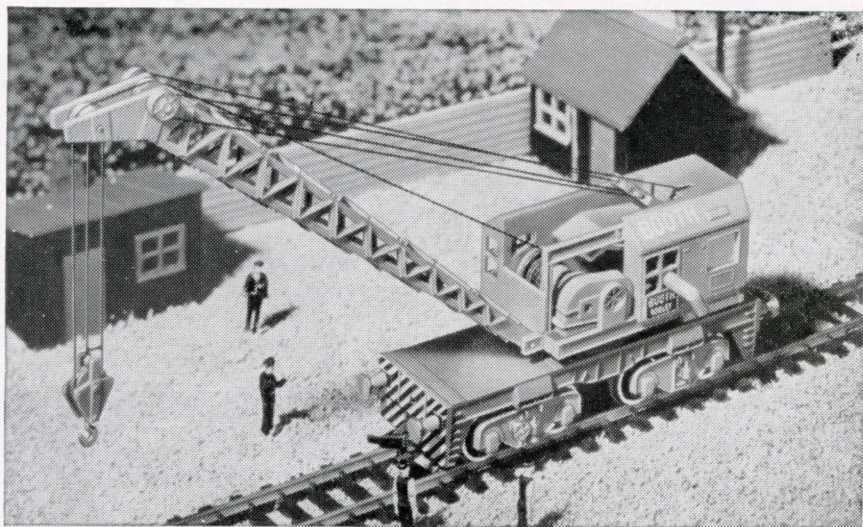
JANUARY 1963



IN THIS ISSUE

Enter our exciting kit contest—full details inside ★ Variations on a diesel theme—Drewry shunter kit conversions ★ History of No. 111 Squadron ★ Profile: Modifying the Airfix Defiant kit

1!



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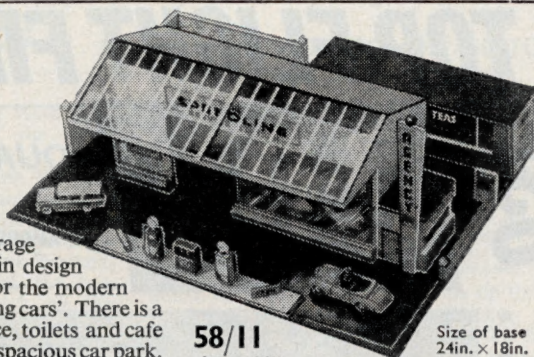
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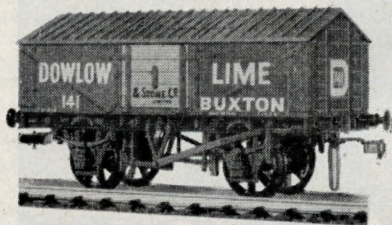
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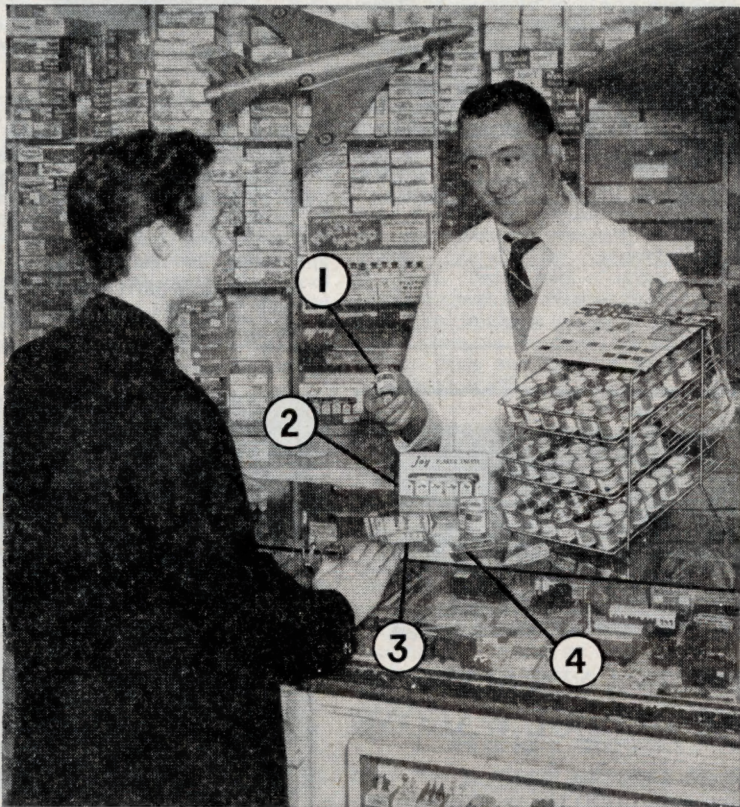
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AIRFIX MAGAZINE

For plastic modellers everywhere

VOLUME 3 NUMBER 8 JANUARY 1963 ONE SHILLING MONTHLY

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Calling all converters!

ON this page last month, we offered the suggestion to model retailers that they run a competition for the best-built Airfix kit, as an incentive to sales. This idea set us thinking, and on page 237 of this month's issue readers will find details of a free, easy-to-enter kit competition which AIRFIX MAGAZINE is running.

Our readers constantly bombard us with an interesting variety of practical kit conversion ideas. Shortage of available space in the magazine, and not the lack of ingenuity on the part of these readers, precludes us from publishing all these tips, though we do try to give the magazine a practical flavour. We welcome these suggestions for, even if not published, they often form a useful basis for future articles.

We are therefore well aware of the wealth of practical ideas on kit conversions that exist among our readers. Through our competition, they will be able to tax their ability against a particular problem, and we feel sure that the quality of the entry will measure up well to expectations.

In order to give all competitors a fair chance of success, bearing in mind the likelihood of a wide difference in ages, we have arranged the contest in two classes, for those under 14 years old and those over 14 years old. We do ask all entrants to study carefully the simple rules and to abide by them. It is most important that contestants send photographs (*not actual models*) of their LSSE shunter conversions, and write their name, age and address, *in ink*, on the back of the photographs. Remember, also, that your model must include some parts of the Airfix Drewry Shunter kit.

So, get those thinking caps on—and here's wishing you luck!

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Cover picture

Our cover picture shows the Avro 748 Series 2 at Embakasi, Nairobi's £2,500,000 airport and one of the busiest in Africa. The "dark continent" was the background for the certification performance and engineering test programme of the prototype Series 2 aircraft. As a result of these tropical trials the performance figures obtained were better than those originally estimated. A story on the Avro 748 was published in our November, 1961, issue.

IN THE **AIR**

BY ALAN W. HALL

WHAT can almost be described as a unique achievement took place recently on a routine flight of a Westland Whirlwind helicopter during rocket firing trials. Unique indeed, for the whole of the port undercarriage oleo was replaced in flight.

When the rockets were fired during the exercise in which the helicopter was taking part, the rocket pack sheared from its mounting and struck the port oleo, shearing it and breaking the fuselage attachment fitting. Ground personnel from the Royal Aircraft Establishment, Larkhill, removed the lower part of the undercarriage and the aircraft attempted to land using baulks of timber to support the side without a wheel. Unhappily it didn't work so it was decided to try and replace the complete assembly whilst the helicopter hovered.

With one crew leaning through a cabin window and another gaining access through the radio and baggage compartments, a new fuselage bracket was fitted. A complete undercarriage assembly was then fitted by four ground crew members and the helicopter landed safely. The whole operation took just over 30 minutes.

★ A flashback to the dark days of 1941-42, when the Japanese were overrunning Malaya, comes from the Far East Air Force, where R.A.F. men have just

discovered the 20-year-old wreck of a Royal Australian Air Force Buffalo fighter.

The wreckage, first reported by local villagers, lay deep in the jungle about 100 miles from Singapore and men of No. 390 Maintenance Unit were sent to examine it. They found that, in spite of exposure to tropical rain and humidity, the aircraft was in a remarkable state of preservation. The .50 calibre guns held 400 rounds of ammunition and the aircraft still had hydraulic pressure and a full oxygen cylinder. The markings were clearly visible, including the serial number W8202 and the squadron letter 'G'. Air Ministry records show that Buffalo W8202 went to No. 453 Sqdn. R.A.A.F. in May 1941. It was subsequently damaged in an accident in August of that year, going to R.A.F. Seletar for repair. Its subsequent history is not recorded, but the chapter can now obviously be closed as the aircraft is the one that came to rest in the jungle and remained undiscovered until today.

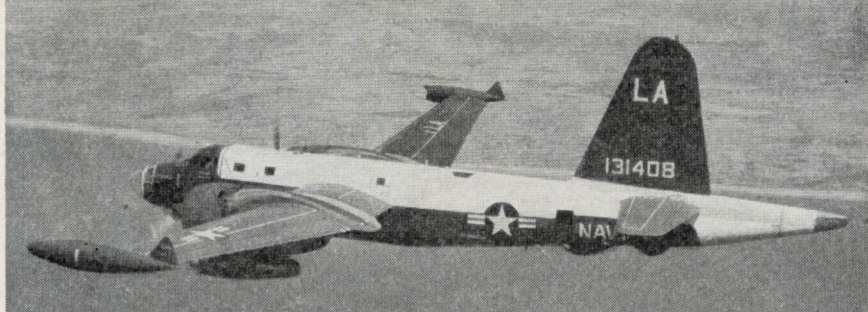
The unknown pilot who made the forced landing must have come down in a clearing which has now been overgrown. The tail of the aircraft was twisted and torn on impact and the port wing, still attached to the fuselage, was buried in a swamp. The R.A.F. party returned to Singapore after removing the guns and ammunition.

★ Do you want to buy an airfield? If you do there's one for sale, and a very famous one at that, for R.A.F. Hornchurch, Essex, one of the Battle of Britain airfields,

The world's first convertible cargo-passenger jet airliner, the DC-8F Jet Trader, made its maiden flight on October 29 and comes into service with Trans-Canada this month.

Note the huge freight door.





is to be put on the market early this year.

With the exception of the officers' and airmen's married quarters, the whole of the technical areas, including the hangars and other buildings, will be offered for sale, as they are now regarded as surplus to R.A.F. needs. The actual airfield itself will be offered back to its original owners.

The airfield, formerly known as Sutton's Farm, first became operational in 1915, and was used by the Royal Flying Corps and Royal Air Force until 1920. It was reopened as R.A.F. Hornchurch in April 1928, and some of the most famous R.A.F. fighter squadrons operated from there during the Battle of Britain.

★ The total number of civil transport aircraft in service, or on order, which have Rolls-Royce engines has now reached 1,255, of which more than 1,000 are already in service. This represents more than 57 per cent of all the turbine-powered transport aircraft outside the Sino-Soviet bloc.

★ A new era in air transportation opened on October 29, when the first Douglas DC-8F Jet Trader made its maiden flight. Scheduled to go into regular service with Trans-Canada Airlines this month, the third generation of the proved DC-8 is designed to provide complete flexibility of accommodation, ranging from all-cargo to all-passenger configurations. Interchangeable seats and cargo handling apparatus permits conversion of the interior to any ratio of passenger and cargo capacity in two hours. A bulkhead divides the interior.

The convertible concept will broaden the scope of air transportation by greatly lowering the costs of both passengers and freight. The new Jet Trader should profitably carry cargo on the long haul routes at about half the current rates. The range of the new aircraft will be about 7,000 miles, at speeds of more than 575 m.p.h.

★ One of the few surviving Spitfires with a record of wartime operations is to be mounted in flying attitude inside the main gates at R.A.F. Station Locking, Weston-super-Mare.

This aircraft is a Mark IX (MK356) and has, until recently, been on display for 10 years at Hawkinge, until that station was closed down last year. MK356 joined

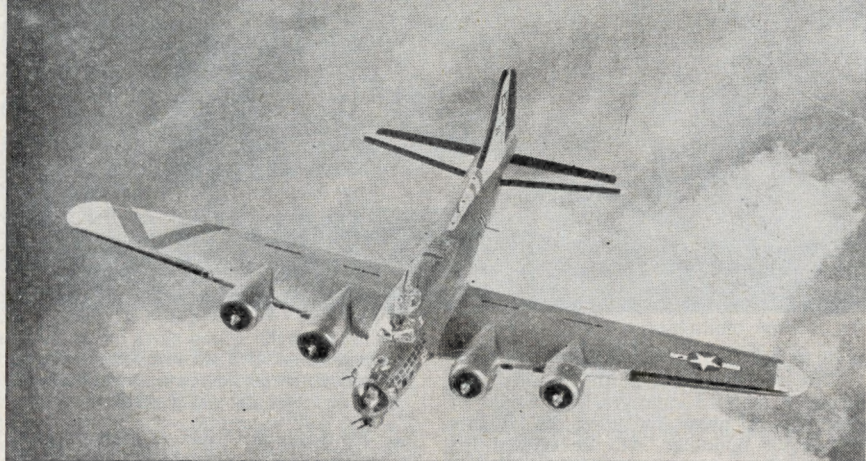
Under the new U.S. armed forces aircraft designations the well-known Lockheed P2V-7 becomes the P-2H Neptune.

No. 443 Sqdn. R.C.A.F. at Digby, Lincs., in March 1944 as part of a Canadian wing led by Wing Commander J. E. Johnson, the top-scoring fighter pilot in the R.A.F. During the weeks preceding the invasion of Europe the wing operated from several airfields near the south coast on low-level fighter-bomber strikes and escort duties, and was flying from Normandy shortly after D-Day. In August 1944, MK356 was relegated to a servicing unit for reasons not apparent in the records and its operational career ended.

After the war it was renumbered 5690M and transferred to R.A.F. Halton, Bucks., for instructional use and then went to R.A.F. Hawkinge for exhibition. With the passage of time, plus the addition of successive layers of silver paint, its original identity was forgotten until 1958, when some of the staff of Hawkinge traced its history and restored it to more appropriate finish.

★ In order to stimulate public interest in air travel, and we hope provide a field day for the spotters, an Air Travel Fair is to be organised at Biggin Hill from May 2 to 5 inclusive. It is hoped that a large number of airliners will be on show and that both British and foreign firms will take part.

★ The United States armed forces have decided on a new system of aircraft nomenclature which brings up to the same standard all Army, Air Force and Navy aircraft. This is a very welcome move, but for the spotter there will have to be a great deal of re-thinking before putting down the designation from now on as there are a great many variations to the theme. Basically speaking the system is A—Attack, C—transport, D—director, E—special electronics, F—fighter, K—tanker, O—observation, P—patrol, S—anti-submarine, T—trainer, U—Utility and X—research. It will take a considerable time to get used to as the changes mostly affect U.S. Navy types, but in this column we will do our best to keep up with the times, and use the new system from now on.



NEWS FROM AIRFIX

The world's greatest value in construction kits

1:72 scale Fortress—a real winner!

PRINTING schedules can sometimes cause problems, and in last month's issue we were only able to give brief details of the new 1:72 scale Airfix B-17G Flying Fortress. Priced at 7s. 6d., the kit has 101 parts and makes a model 17½ inches long with a 12½ inch wing span.

For their model, Airfix have chosen one of the aircraft operated by the 447th Bombardment Group of the U.S. Eighth Air Force, which is typical of the late production models of this version. The lack of camouflage and the bright unit markings carried are a good illustration of the almost complete air superiority which had been achieved by the end of the war in Europe.

The Airfix B-17G has moving guns, retractable under-carriage, rotating turrets, and movable elevators and ailerons. Full assembly and painting instructions are, of course, supplied with the kit, together with a tube of cement and necessary transfers. Basically, the kit is cast in silver plastic, and there are a large number of transparent parts for use as windows and transparent turrets. There are also eight scale crew members and a transparent plastic stand, on which to display the completed model.

Model aircraft enthusiasts will derive many hours of pleasure from assembling this finely-detailed kit. As many of them are aware, the rivet detail on the Fortress is something of a model maker's nightmare, and a great challenge to a kit manufacturer when tooling up for this model. The rivet detail on the Airfix Fortress is superb, and adds the final touch to what must surely be one of the finest and most

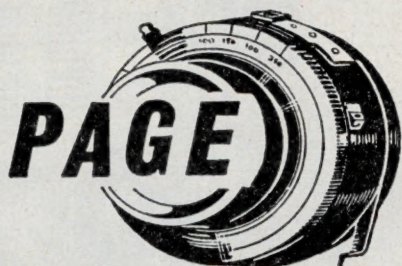
realistic Airfix aircraft kits yet produced.

Our "Profile" feature in last month's issue dealt comprehensively with the history of the various marks of Fortress. After the war, many B-17s continued in service, some as bombers with many of the smaller Air Forces, some on search and rescue duties with the U.S.A.F. and some converted for civilian use. Some 12,700 Fortresses were produced, and during the war they dropped no less than 640,036 tons of bombs and destroyed more enemy aircraft per thousand sorties than any other type of U.S. aircraft.

A feature of the Fortress was its high-flying capability, which enabled it to become such an effective day bomber. Fortresses were able to carry home their attack safely above the ceiling of the enemy anti-aircraft barrage and heavy armament (carried in four main turrets on the B-17G) provided effective defence against enemy fighter attack. The Fortress was the mainstay of the American Army Air Force's attack on enemy occupied Europe which, in conjunction with British Bomber Command's night offensive, maintained a round-the-clock aerial bombardment.

The Boeing B-17G was powered by four Wright Cyclone air-cooled radial engines, each of 1,200 h.p., giving a maximum speed of 300 m.p.h. at 30,000 ft., and a range of approximately 2,000 miles. Bomb load varied up to 17,600 lb. for short-range missions and defensive armament consisted of either 12 or 13 0.5 inch guns. Wing span was 103 ft. 9½ in. and length 74 ft. 4 in.

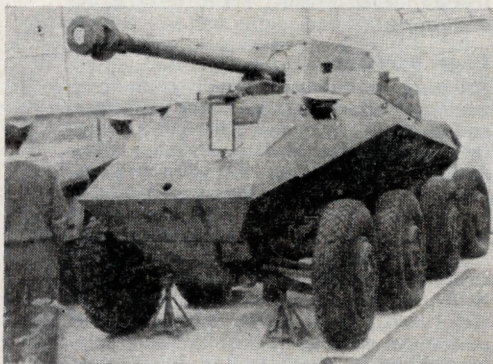
PICTURE



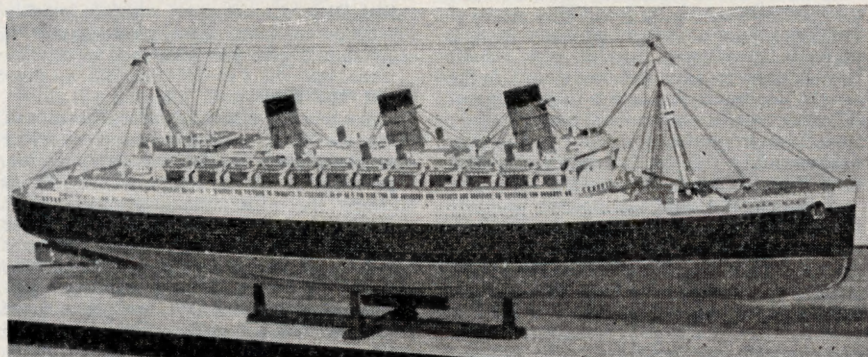
Above: Picture of the month award goes to M. Rumney, of Downham Market, who sent this shot of a 1907 Wolseley Siddeley. Below: A. Piper, of Liss, sent this print of a special German W.W. II armoured car from Bovington tank museum. Bottom: This splendid *Queen Mary* model was built and snapped by L. G. Swift, of Kettering.

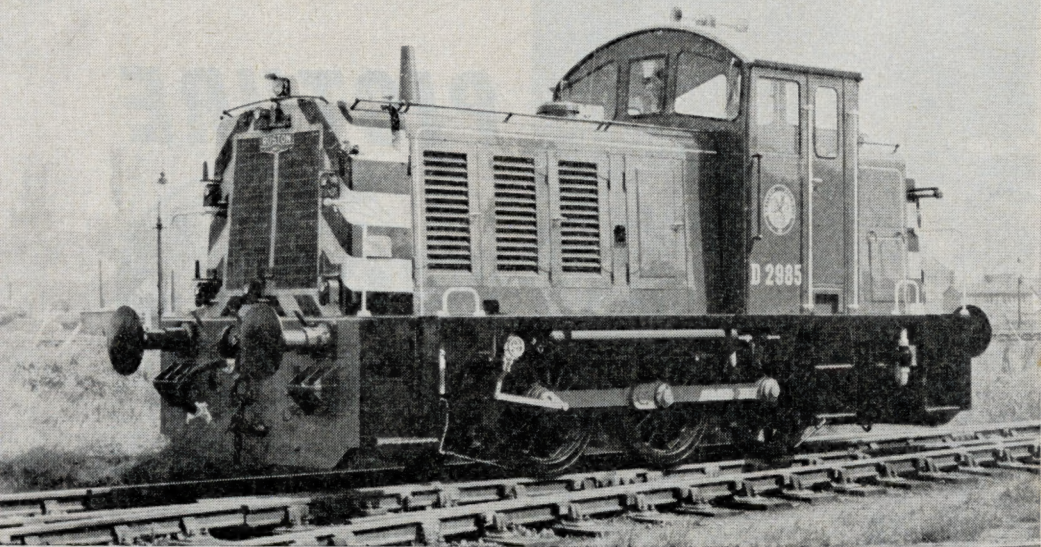


Above: This Bell Iroquois was photographed at U.S.A.F. Wethersfield by M. T. Denning, of Cambridge. Below: An Airfix Hart, made by J. W. Elliott, of Plymouth.



EDITOR'S NOTE: Our Picture Page "pending" file is now overloaded with aircraft. We like some variety on this page, so would welcome for consideration train, ship, road transport and other general pictures. We pay 15s. for each photograph published, plus an extra guinea for picture of the month.





Kit conversions

by Mike Bryant

Variations on a diesel theme

SEVERAL readers have commented on my remarks in last month's article about a quick sketch or a photograph giving you the information you need to make a model. You must read this assertion in its context; I would not, of course, be foolish enough to think that *any* model could be made with reference only to quick sketches or the odd photograph, but in the case of the Scammell variations you have the kit parts of the tractor which give you definite measurements to compare with similar dimensions on a photograph.

Take the 800 gallon gully emptier, illustrated on page 207 of the December issue—the tank is nearly three-and-half times as long as the wheel diameter. You can measure the Airfix wheel, so that the tank needs to be three-and-half times this measurement—and so on. This way of building up a sketch from which to work is perfectly satisfactory in this type of kit modification because, as I pointed out in the article, Scammell produce a wide range of different vehicles and trailers, and any slight variations in dimensions can quite easily correspond to full-size differences, provided only that the main proportions are right.

If you want to make a completely accurate model of any one particular prototype there is no such short cut, I am afraid. You must get hold of scale drawings, as many photographs as possible showing your subject from varying angles, roll up your sleeves and build your model from scratch. That is an aspect of modelling with which I

hope to deal in future articles, so I shall be trying to cater for all types of modeller in due course.

Diesel prototypes

Shunting and industrial diesels come in a weird and wonderful assortment of shapes and sizes, and give modellers good scope for improvisation and modification. The Airfix Drewry shunter kit gives you the basic components in excellent detail—things like side casings with ventilation louvers (*always* beastly things to model accurately and convincingly), a standard cab with all window and door detail, steps, buffer beams and so on. Photographs of diesel locos appear in the daily, technical and model press from time to time; there is also an excellent 3s. Ian Allan book called *Diesel Locomotives*, which is lavishly illustrated with excellent photographs—a copy should give you plenty of ideas.

Some suggestions

To give you some specific ideas, this month there are three photographs of models I have made quite simply from the Airfix kit. Figure 1, the littlest joker of the trio, is perhaps the most straightforward. The radiator casing is shortened to three ventilated panels only and the footplate is cut behind the front step recess. The jackshaft drive is omitted and the mainframes shortened to suit the abbreviated footplate, and a couple of stanchions and a handrail are added at the front.

The double-ended, centre cab version shown in the second photograph was inspired by a photograph published on the AIRFIX MAGAZINE "Picture Page" for June 1962, showing a diesel shunter of the Indian Northern Railways. A.E.I. have also supplied a very similar type to the New Zealand Government Railways. The bogies on mine came from a Kitmaster steel French coach, and two Drewry kits went into the body, with a Plastikard "box" under the cab. The third variation again uses two Airfix kits and similar bogies to No. 2, but this time the cab is at the rear, with a double length radiator casing

AIRFIX DREWRY COMPETITION

The ten rules

1. There will be two classes: under 14 years and over 14 years. Age will be taken into account.
2. Only photographs of models must be sent. They should be not smaller than enprint size and have the competitor's name, age and address written on the back *in ink*.
3. Photographs submitted become the property of AIRFIX MAGAZINE and cannot be returned.
4. ACTUAL MODELS MUST NOT BE SENT.
5. Models must use some parts of an Airfix Drewry Shunter kit and be based on the Ruston LSSE type illustrated in the photograph on page 236.
6. Entries will be judged by an AIRFIX MAGAZINE editorial panel, including Mike Bryant.
7. The Editor's decision will be final and no correspondence can be entered into about the competition or its result.
8. There will be a prize, in each age section, of £2 2s. Second and third in each section will receive an Airfix kit of their choice.
9. Entries should be addressed to "Drewry Competition", AIRFIX MAGAZINE, Brands Hatch Circuit, Fawkham, Dartford, Kent, to be received not later than February 28, 1963.
10. Results will be published in the April 1963 issue of AIRFIX MAGAZINE, published on March 20.

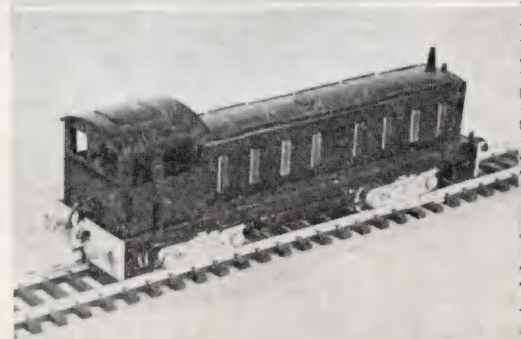
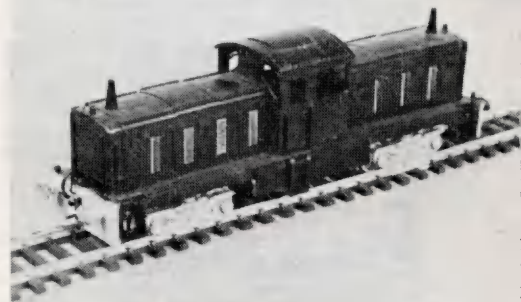
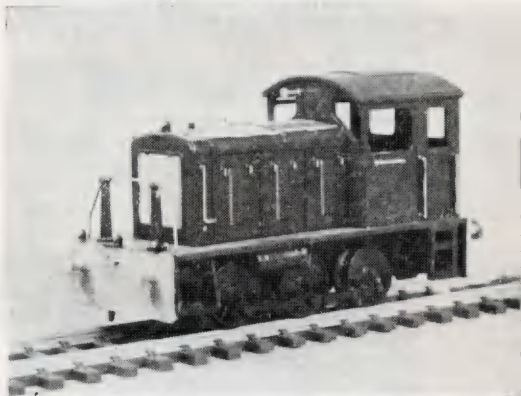
Above: Ruston Paxman LSSE type diesel shunter as supplied to B.T.C. for use in Southampton Docks (photo by courtesy Ruston Paxman Sales Division). Below, top to bottom: Fig. 1—Straightforward adaptation; Fig. 2—Double-ended centre cab version; and Fig. 3—Rear cab, with double length radiator casing.

stretching way ahead to give very much a "Slim Jim" appearance. Its looks would have been improved, I think, if I had added some low battery boxes on the footplate along the bottom of the casing sides—it would have broken up that long, long look a bit.

Well, there you are—some ideas for you to develop. How about having a go with the Ruston LSSE type shown in the photo, which Ruston Paxman kindly provided for this article?

To start the new year, AIRFIX MAGAZINE is holding a competition for the best effort at adapting an Airfix Drewry shunter kit to make a Ruston LSSE Southampton Docks shunter. Full details of how to enter are given on this page.

Copyright, Mike Bryant, 1963.



LAYOUT REALISM

by Alex Bowie

A CIRCUIT that is quite popular is one with a terminal station and one passing station, on a circle track. But I have never yet figured how a *non-push-pull* train leaving the terminal can get back to it in normal formation, without there being a complete reshuffling at the passing station.

In other words, the passing station must be used as a terminal at some stage in the operations. And this, to me, seems to defeat its whole object.

Logically, the train should leave its terminal, reach the passing station and then go to an imagined destination. It should appear again, a return ticket later, travelling in the opposite direction, *i.e.*, back to the terminal.

For this objective, some modellers introduce a reversing loop. But it usually has the

disadvantage that it clutters up the centre of the room, interferes with operating space, and is unrealistic in appearance. Personally, when operating, I hate being cooped up like a chicken in a cage, or ducking under baseboards in order to get to another part of a layout.

A compact reverse loop

It doesn't *have* to be so obtrusive. In these days of progressive thinking in railway modelling, quite a few enthusiasts are now accepting that a curve need not be of large radius, provided that it is out of sight. Some of those American locos, with more coupled wheels than a caterpillar has feet, can manage 18 inch curves. A few Continentals can manage to get ten coupled wheels around proprietary curves, with flanges on each wheel.

And though I'm afraid that most *scale* British prototypes haven't got as far as that yet, the proprietaries can manage about 15 inch radii quite easily. A 15 inch reversing loop takes up only 30 inches of space, and on a medium to large layout can be accommodated quite nicely.

Now look at Fig. 1. This shows a small radius reversing loop tucked into the corner of a layout. It can be screened off, or disguised with hillside scenery, but should not be *totally* enclosed by a covered tunnel, because accessibility is important. The points should be well exposed.

A loop of any kind solves a problem but, like most solutions, it introduces problems of its own. Mechanically, it is straightforward, but electrically there are quite a few snags. Study Fig. 1 again.

The loco is doing quite nicely until it gets back to the main line at X, but when it reaches X there will be a bit of a *contretemps*. The loco is now travelling in a reverse direction, and therefore the polarity of the track X must be changed.

Most boffins take care of this with a battery of switches, either stopping the train on the loop while they think things over, or by switching just before the train gets back to the main line.

However, as the points have to be changed also, it is possible to parallel switches to the point-operating mechanism, so that polarity is automatically reversed.

But when the train circles the main line and reaches point Y, as in Fig. 2, there is more trouble, and more switching to introduce, because it will be seen that the polarity of the reversing loop will have to be altered.

The net result will be a complicated

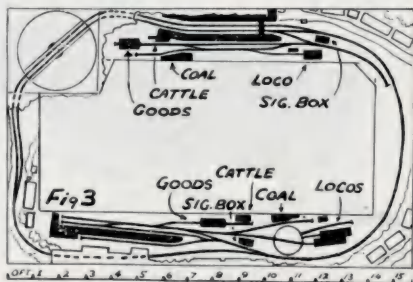
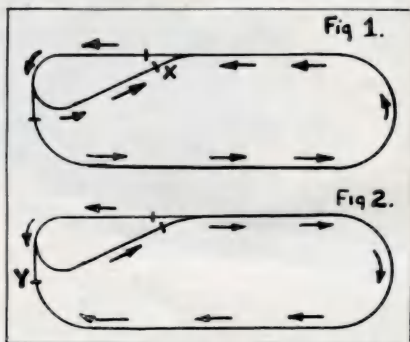


Fig. 1: A reverse loop can be quite compact, but you have to cope with electrical problems. This shows how a train is faced with reversed polarity when coming out of the loop. Fig. 2: And again, after circling the track. Both problems are overcome with switches—and some careful thought. Fig. 3: A layout with a turntable. This eliminates pointwork—and has its points.

array of switches which need plenty of concentration. A single loop, as shown, should not worry the average chap, but when double track is visualised, the complication naturally gets—well—more complicated.

Now some modellers love this sort of thing, and there's a lot to be said for it, because in a small space it does introduce a very interesting piece of operation. However, after scratching my head thoughtfully, I have plumped for an alternative method, which uses a variation of the turntable I described last month. A circuit using this is shown in Fig. 3.

A roller-bearing turntable

My own version is not quite as simple as that previously described, and instead of pivoting on a bolt, uses a large "surplus" roller bearing, supported each end by Woolworths ball castors. (Not those expensive ones at a pound a set, but a much cheaper version, each consisting of a pressing containing one large steel ball.)

There is hardly space for a complete description, but a general idea is given in the drawing of this month's layout. I have tried to keep the constructional method as simple as possible, though those fortunate chaps with a complete workshop stored under the bed will use other methods.

Note that the roller bearing should be as large as possible, though not necessarily

as big as that sketched. Let's look at the large pictorial sketch.

First, take A. This is a circle of wood screwed to the table platform B. The wood is forced into the inner ring of the bearing. The outer ring of the bearing is firmly wedged between two wood blocks, D.

The two ball castors are fitted each end, as at E, which also shows a castor enlarged.

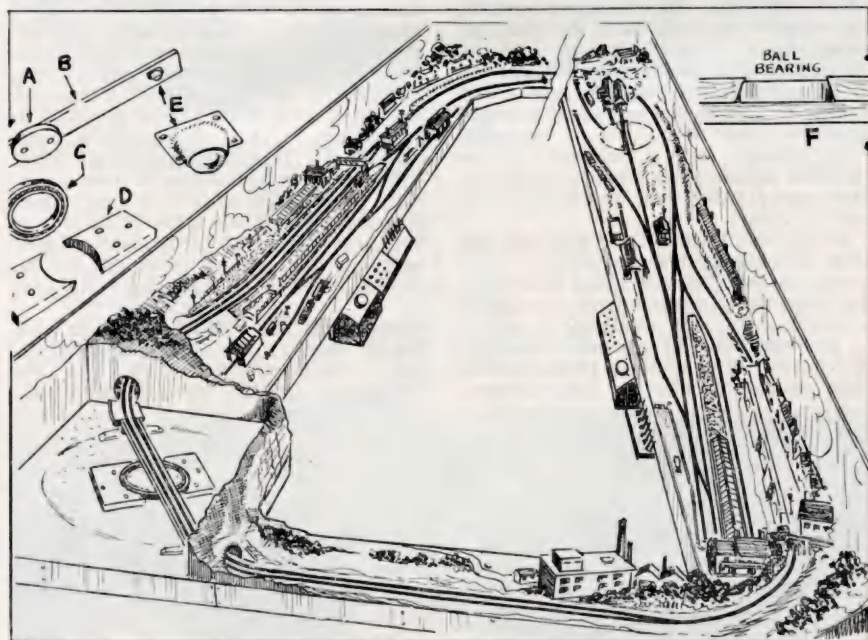
Slight chamfer

It is better that there should be a slight chamfer on the inner circumference of the two wedging blocks, as this will tend to hold the bearing down more firmly as at F.

The layout is rather larger than those I usually sketch, but nevertheless is more suitable for short local trains than expresses. Apart from the fact that a Pacific looks out of place on what is obviously a country branch, the turntable will become unwieldy if made too large, and is best restricted to three-coach moderns and modest freights, or to short old-time coaches.

You will notice that the table will store two trains, and when turned each will be on its correct track automatically. If motorised, the table could be completely automatic in operation. It could turn, hold trains in storage, and release them at intervals in any direction.

The pictorial layout, showing also the general principles of the turntable.





SHIPPING NOTES

by A. J. Day

ONE does not have to be intimately associated with the shipping world to know that the industry—including both shipbuilding and shipowning—is passing through very difficult times. Millions of tons of world shipping are laid up for lack of employment—577 vessels of over 4 million tons gross were the figures for November last—and some shipyards have had to close down. A bleak prospect, indeed.

However, one shipbuilding company who are not sitting back and crying at the present position are Cammell Laird and Co. (Shipbuilders and Engineers), Limited, whose chairman and managing director has accepted the challenge of the times and stated that it is up to them to show the world how they can be more competitive in the shipbuilding field. Within a few weeks of this statement he announced details of what has come to be called "the selected six"—a selection of six standard designs of motorship, comprising three general cargo ships, two bulk carriers and one tanker.

It was emphasised that, although the ships were designed to be produced at the lowest possible cost, this would not involve any lowering in the standards of material or workmanship and would not be subject to any relaxation of efficiency, economy or reliability. The prices of these standard ships are substantially less than those for

non-standard ships, because the latter are always built to owners' specifications.

The smallest of the "selected six" is a 3,150/4,000 tons dw. open/closed shelter-decker, with four cargo holds and machinery aft, which is designed to give a speed of some 14½ knots. Next in order of size is an open/closed shelter-decker of 8,500/9,500 tons dw., with a speed of 15½ knots, followed by a larger vessel of 10,500/12,500 tons dw. with a speed of 14½-15 knots. Both vessels have their machinery arranged aft.

The bulk carriers are of 23,000 tons dw. and 56,000 tons dw., having six or nine holds respectively, and an alternative seven-hold arrangement for the 23,000-ton vessel allows ore to be carried in alternate holds. Of 57,400 tons dw., the tanker is designed with six centre tanks and five pairs of wing tanks for oil cargo, leaving two wing tanks available as registered "Clean Ballast" tanks. All the vessels in the range are available with a number of main propulsion machinery installations.

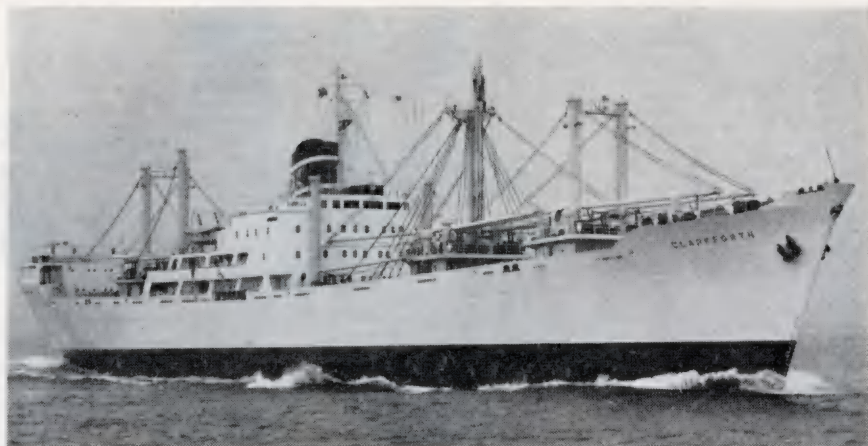
World's fastest cable layer

The twin-screw diesel-electric ship *Mercury* (8,000 tons gross) has three claims to fame. She is the world's fastest cable layer, the largest vessel in the fleet owned by Cable and Wireless, Limited, London, and also the first cable layer in that fleet, which consists of seven vessels, including the 1961-built cable ship *Retriever*. In December she was due to leave for the Pacific loaded with lightweight cable and repeaters, to lay two-thirds of the Commonwealth telephone cable. The *Mercury* has a speed of 17½ knots, a length o.a. of about 473 ft., a moulded breadth of 58 ft. 6 in., a depth moulded to upper deck of 39 ft. 3 in., and a cable capacity of 1,200 miles of lightweight cable.

To provide a high degree of manoeuvrability, a Voith-Schneider transverse propulsion unit, giving a side thrust of six tons, is fitted immediately aft of the forward peak tank. Her diesel-electric propulsion machinery, supplied by the English Electric Co.,

Above, left: *The ESO LANCASHIRE, the largest vessel so far built in Scandinavia.*
Below: *The world's fastest cable layer, the twin-screw diesel-electric ship MERCURY.*





Limited, comprises a four-engined arrangement, each engine driving a d.c. main propulsion electric generator.

A Scandinavian record

One of the most interesting of the recent new ships is the *Esso Lancashire*, the largest vessel so far built in Scandinavia. Of 81,138 tons dw., she was built by Kockums Mek. Verkstads A/B, Malmo, for the Esso Petroleum Co., Limited, London. On her trials in the Baltic she attained a maximum speed of 18.18 knots. Her Kockum-Laval turbine machinery is of a new type with increased steam pressure and incorporating several technical novelties, so the low fuel consumption reported from the Baltic trials is of particular interest.

Her rudder and stern frame are of the "Mariner" type and the vessel has a length o.a. of 855 ft. 10 in., a moulded breadth of 112 ft. 6 in., and a moulded depth of 62 ft. 6 in. Her cargo space is subdivided into 39 separate compartments, wing tanks Nos. 6 and 7 being designed exclusively for water ballast.

Addition to Clarkson fleet

The most recent addition—and, incidentally, the company's fastest vessel—to the fleet of H. Clarkson and Co., Limited, London, is the cargo motorship *Clarkforth* (13,750 tons dw.). She was built by Lithgows, Limited, Port Glasgow, at a cost of about £1m. The *Clarkforth* is designed as an open/closed shelter decker and is powered by an 8-cylinder B. and W. poppet valve oil engine, the first of this type to be built by John G. Kincaid and Co., Limited, Greenock, that developed 8,700 b.h.p. at 135 r.p.m. on the trial run, which gave a speed of 18.39 knots. In the open shelter-deck condition, the *Clarkforth* has

The cargo motorship CLARKFORTH, latest addition to the fleet of H. Clarkson & Co., London.

a capacity of 11,437 tons dw. and for cargo handling there are 17 derricks. Her total grain capacity is 689,450 cu. ft.

First guided missile destroyer

The Royal Navy's first guided missile destroyer, H.M.S. *Devonshire*, was commissioned for service in November, the ceremony taking place alongside the ship at the Birkenhead shipyard of the builders, Cammell Laird and Co. (Shipbuilders and Engineers), Ltd. H.M.S. *Devonshire* was launched in June, 1960, having been laid down in March, 1959. With a length of 520 ft. and a beam of 54 ft., she has a standard displacement of over 5,000 tons. Details of her armament and some information on her new type of propulsion machinery have already appeared in AIRFIX MAGAZINE.

The keel of the *Naiad* (2,000 tons), a Leader-class frigate, was laid a few weeks ago at the Scotstoun, Glasgow, shipyard of Yarrow and Co., Limited. This brings the total number of ships of this class under construction to nine. Another four have been ordered, but have not yet been laid down. Besides building the hull of the *Naiad*, Messrs. Yarrow will also be responsible for the manufacture of the steam turbine machinery.

A few days before the keel of the *Naiad* was laid down, the first pre-fabricated unit of a new Oberon-class submarine, to be named H.M.S. *Opportune*, was laid by the builders, Scotts' Ship - building and Engineering Co., Limited, Greenock. British Polar Engines, Limited, Glasgow, will supply the main machinery.



RAILWAY REVIEW

BY NORMAN SIMMONS

DELIVERY to British Railways of D1500, the first of the new Brush Type 4 diesel-electric locomotives, was reported last month. The new locomotive is the most powerful single engine loco to be built for B.R., and uses a 12 cylinder 2,750 h.p. Sulzer diesel engine. It is 63 feet long, weighs 114 tons and is carried on two six-wheel bogies.

The B.T.C.'s design panel have been to work on the exterior and they appear to have made a good job. The front end is attractive by diesel engine standards and the exterior is reasonably clean. The colour scheme is described as "olive green bodywork with a broad band of a lighter shade of green around the waist", but when we saw it recently the light green appeared to be the predominant colour.

D1500 is the first of a batch of 20, ordered in February 1961. Others will be built in B.R. workshops as well as the Brush works, Loughborough, for the

London Midland, North Eastern and Western regions. D1500 was transferred on loan from the E.R. to the W.R. on November 4, and on November 17 we saw it racing westwards on the main line through Wantage Road on a parcels train.

Beattie well tanks

The Beattie well tanks were in the news again recently when 30585 and 7 performed their swan song on the special train organised by the Stephenson Locomotive Society and the R.C. & T.S. over former L.S.W.R. London suburban lines. Although the three surviving members of this ancient loco class have been domiciled in Cornwall working china clay freight trains for very many years (see our November issue), they were, in their hey day, used on suburban passenger services in the London area.

These days were relived when the special train visited Wimbledon, via the East Putney line, Hampton Court, Chessington South, Kingston, Shepperton and Rich-

mond. Such was the popularity of the trip that it was run on two separate occasions, December 2 and 16, a unique feature for an enthusiast trip.

Southern motive power

The steady withdrawal of steam locomotives from the Southern Region is beginning to have dramatic effects. In a remarkably short time all the Lord Nelsons have been withdrawn. One solitary King Arthur, 30770 *Sir Prianius* was, until recently, running from Basingstoke shed with one nameplate missing, but is now withdrawn. All the Schools were scheduled to be withdrawn during December, but at the time we went to press one or two were still running around. This means that virtually all former S.R. main line passenger engines, with the exception of the pacifics are now either out of service or scheduled to be shortly.

It is now learnt that it is the turn of the goods and mixed traffic locos to be withdrawn in large numbers. All five classes of moguls, the N, N1, U and U1 and the former L.B. & S.C.R. K classes are being dealt with and several of these locos have already been cut up. Both the Urie and the Maunsell S15s have recently lost some of their number, two of the unique Z 0-8-0Ts, the last G16 4-8-0Ts and the first of the Q class 0-6-0 have also gone.

Such dramatic pruning of the S.R. loco stud will no doubt be felt by the operating department at peak holiday seasons. It is, however, learnt that surplus B.R. Standard Class 4 and 5 4-6-0s will be transferred from the Eastern Region.

King Class

It is likely that, by the time these words are in print, the last revenue earning mile will have been run by the G.W.R. King Class. 6000 *King George V* and 6018 *King Henry VI* have been active recently and are likely to be the last to go, but it is with deep regret we record their passing. Fortunately they are both to be preserved,

D1500, the new Brush Type 4 2,750 h.p. diesel locomotive. It is the most powerful single engine loco to be built for British Railways.



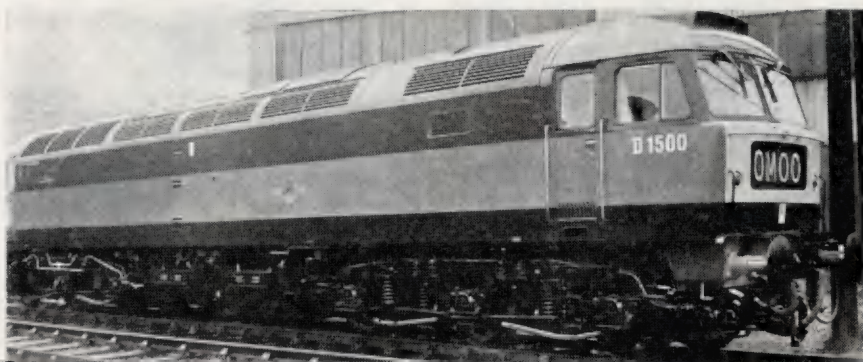
Above: The interior of the cab of the new Brush Type 4. Left: A B.B.C. Newsreel cameraman films the departure of the special train, hauled by a Beattie well tank, from Waterloo, on December 2. The special trip was repeated on December 16.

6000 by the B.T.C. and 6018 by an American gentleman.

Locomotive notes

Reported deliveries of new locos are as follows: D1041 *Western Prince*, D1042 *Western Princess*, D1043 *Western Duke*, D4183-5, D7049-53, 5 to the Western Region; D4148-52, E3071, 87 to the London Midland Region; D8501-11 to the Scottish Region; D1501, D5862 to the Eastern Region; D186-7, D6763-8, D6778-81 to the North Eastern Region; and D2993-6 to the Southern Region.

Recent steam locomotive withdrawals, other than those already mentioned above, have included four Princess Class 8P pacifics, five Royal Scot 7P 4-6-0s including 46100 *Royal Scot* itself, four Patriots, six Jubilees, 13 post-war Thompson and Peppercorn pacifics of classes A1, A2 and A2/3 and three Gresley class A3s.





ON ROAD AND TRACK

BY DARRYL REACH

THOUGH the winter months are with us again in no uncertain fashion, there is plenty of motor sporting interest to hold the attention of fireside enthusiasts at this time of the year. While British rally and trials stalwarts enjoy another winter season, motor racing makes its traditional out-of-season come-back (weather permitting!) with a programme of seven races at Brands Hatch, in Kent, on Boxing Day.

Looking further afield, there is the Monte Carlo rally, in January, which will see competitors battling once more across Europe to reach the south coast of France. On the motor racing front, enthusiasts will be following the New Zealand and Australian series of events (collectively known these days as the "Antipodean season") and, of course, the South African Grand Prix, at East London on December 29, the last round in the 1962 World Drivers' Championship. Highlight of this last event is the battle between Jim Clark and Graham Hill, who are neck-and-neck for this coveted motor-sporting title.

Few British enthusiasts will be fortunate enough to be present at East London. But they can treat themselves to a feast of good

racing machinery at the Racing Car Show, at London's Olympia, which opens on January 25. Let's take a closer look at these exciting events.

The Boxing Day meeting at Brands Hatch has now become a traditional part of the British sporting scene. This year's meeting has, as its main attractions, an event for pre-war racing cars and the 20-lap Silver City Trophy race for sports cars. Other highlights of the day are the final rounds in the John Davy Formula Junior Championship, the Peco Grand Touring Car Championship and the Molyslip Saloon Car Championship. Bad weather has never yet caused the "Brands Hatch on Ice" meeting, as it is often referred to, to be cancelled, and racing enthusiasts will be keeping their fingers crossed that this year doesn't prove the exception!

After winning the R.A.C. Rally of Great Britain, in November, for the third year running, Sweden's Erik Carlsson and his Saab will be all out in January to repeat their win in last year's Monte Carlo rally. Carlsson so nearly carried off the 1962 European Rally Championship, but had to give best to Stuttgart hotelier Eugen

Böhringer, who took the title this year with his works Mercedes.

The list of British entries for the Monte, recently published by the R.A.C., includes works teams from B.M.C., Ford, Reliant, Sunbeam and Triumph, and a team of Vauxhalls from the Army Motor Transport School at Bordon, in Hampshire. At 105, the British contingent is once again the largest in the rally. Starting points this year are Glasgow, Paris, Frankfurt, Stockholm, Monte Carlo, Lisbon, Athens and Warsaw. Well-known British drivers taking part include Raymond Baxter, Christabel Carlisle, Pat Moss (in her first drive for Ford), Paddy Hopkirk, "Tiny" Lewis, Pauline Mayman, Peter Procter, David Seigle-Morris, John Sprinzel and ex-Grand Prix driver Henry Taylor.

Many of the "big names" in International motor racing spend their "off season" racing in New Zealand and Australia, during our winter months. Certain to feel at home, and assured of a big welcome "down under", are New Zealander Bruce McLaren and double world Champion Jack Brabham, of Australia, both of whom have made big names for themselves in European racing. For your diary, dates of the main New Zealand and Australian races are:—New Zealand G.P., January 5; Levin, January 12; Lady Wigram, January 19; Invercargill, January 26; Catalina Park, January 27; Warwick Farm, February 10; Lakeside, February 17; Longford, March 2-4; and Sandown Park, March 10-11.

The 1962 motor racing season reaches its climax with the South African Grand Prix at East London on December 29. This race will decide who shall wear the World Championship crown, and it's certain to be either Jim Clark with his Lotus or Graham Hill, who drives for B.R.M. Both have had a most successful season and equally deserve the title. To win the championship, Clark *must* win the race. If he doesn't, then Hill is home and dry, even if he doesn't score. Few people would like to stick their necks out and predict the result. There is,

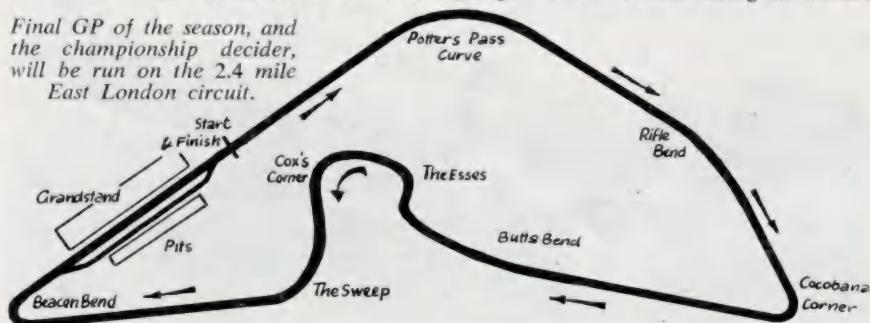


Left: Winning combination—Sweden's Erik Carlsson and his Saab. They have scored a convincing win in the last three consecutive R.A.C. rallies. Above: Neck and neck for the World Championship are Jim Clark (left) and Graham Hill.

however, consolation in the fact that it will be a British driver and a British car that will take this year's drivers' and manufacturers' championships.

On January 25, Olympia, in London, will open its doors on the fourth annual Racing Car Show—the biggest and best yet. Until February 2, motoring enthusiasts will be able to browse among stands exhibiting the latest sporting machinery and equipment, and will also see a large selection of racing cars past and present. Details of the Airfix stand at the show are on page 254. Well worth a special visit if you're weary of only being able to sit at home and read of all the sporting activity going on outside Britain during the winter!

Final GP of the season, and the championship decider, will be run on the 2.4 mile East London circuit.



PROFILE

Modifications to the Airfix Defiant kit

PROFILE this month makes a break from its usual styling, and considers possible finishes for the Airfix model of the Defiant, along with modifications that the inexperienced, careful modeller may make in order to produce a simple and most attractive kit conversion.

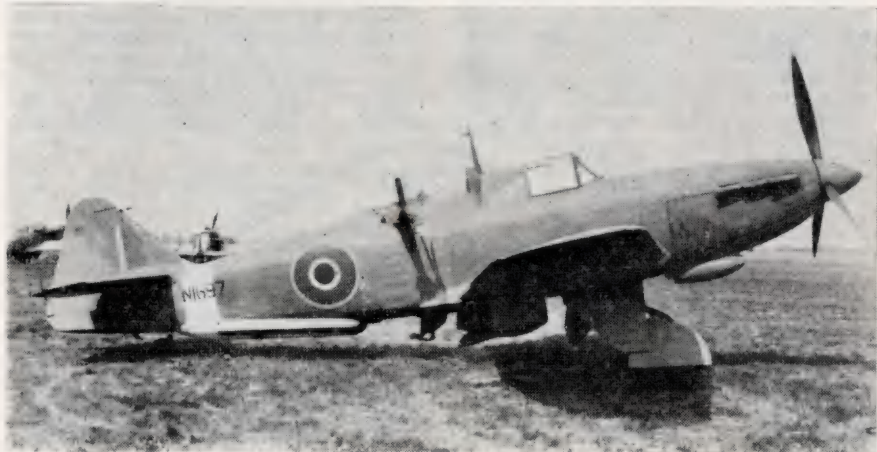
The prototype Defiant K8310 appeared in August 1937 in all-silver finish and differed little externally from production aircraft that followed, so the Airfix model can easily be completed as K8310. It had exhaust stacks, spinner and anti-dazzle panel black. Initially it had a rudder serial, removed when the rudder area was slightly increased. Red-white-blue roundels were applied to the fuselage sides as well as above and below the wings, under which K8310 appeared in black. Provision for a retractable tailwheel resulted in a small bulbous fairing under the rear of the fuselage of the prototype.

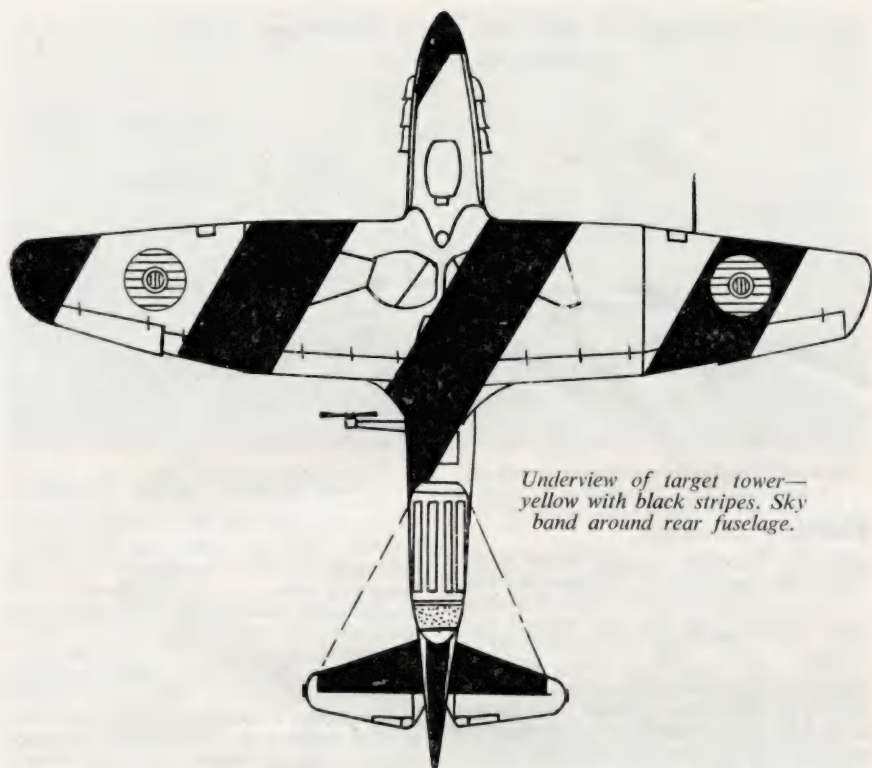
L6950, the first production aircraft, was initially flown on July 30, 1939. It had dark earth and dark green uppersurfaces with the undersurface of the port wing black and the remainder of the undersurfaces

white. Red and blue roundels appeared on the sides and above the wings. On subsequent aircraft the fuselage undersurfaces aft and forward of the wings were silver, but a reversion to the original colouring came at the end of 1939 when the undersurfaces became half black-half white. L6950, being of pre-war vintage, had underwing serials in black or white in 2 ft. 6 in. figures. A set of small bombs from the Airfix Lysander can be hung beneath the outer wing panels of the model, since L6950 underwent trials carrying light bombs.

L6957 entered squadron service in December 1939, and acquired the medium grey squadron code letters T:PS with the "PS" ahead of the roundels on either side of the fuselage. By this time a white band had been added to the fuselage roundel. The camouflage pattern applied to this machine was "Scheme B" which is well illustrated in the September 1961 issue of *Air Pictorial*. Alternately produced aircraft were painted in a mirror image of this pattern, this "B Scheme" eventually being the standard styling.

Before the Defiants became operational in May 1940, their fuselage roundels acquired their yellow surround, fin stripes had been awarded and the pale blue undersurfaces carried red-white-blue roundels. Since these markings were applied to L6957, which by now had a pale blue spinner, she makes an ideal model topic to illustrate the changes in camouflage and markings. L6957 was, incidentally, one of the Defiants of 264 Sqn. which participated in the famous engagements of May 29, 1940, when the squadron claimed *Defiant TT.Mk.3 N1697, showing position of winch.*





*Underview of target tower—
yellow with black stripes. Sky
band around rear fuselage.*

to have destroyed 37 enemy aircraft.

Simple modifications render the Airfix model ready for patrol or battle. Carefully cut the cockpit canopy, and fix the wind-screen in its standard position. The remainder can then be fixed over the fairing between the turret and the cockpit, leaving the latter open to allow for any detail added there to be seen clearly. In this style many Defiants were to be seen flying in the hot summer days of 1940. For combat, the canopy was closed and the upper half of the fairing between cockpit and turret lowered at its aft end. The combing aft of the turret was similarly retracted to allow for gun traverse.

Pin or bristle will do

Immediately outboard of the port wing landing light was placed the pitot head for which a pin or bristle will suffice. The landing light in the leading edge of each wing was fitted at the start of each wing outer panel.

In August 1940 sky undersurfaces were adopted by the Defiant, of which Fighter Command then had two squadrons which, following numerous misfortunes, withdrew

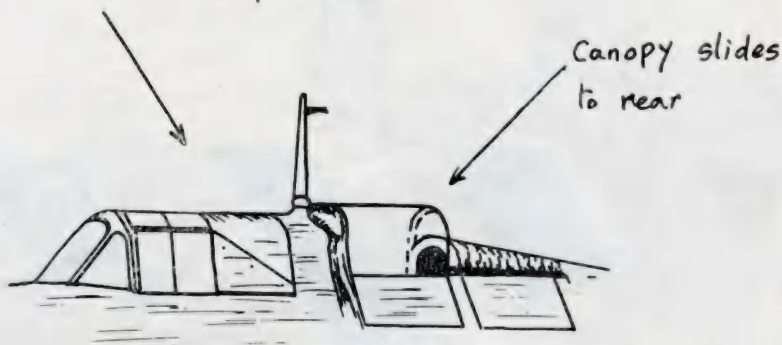
to engage in night fighting. For this, the Defiants received an overall soot-black finish. The winter weather played havoc with the paintwork, and the drab aircraft soon displayed a patchy super-matt finish. This can easily be produced on the model by finishing it with a mixture of matt black paint, turps substitute and Humbrol flattening agent.

This mixture is also useful for the production of exhaust and oil stains without which models always look so lifeless. On the night fighter Defiants the exhaust gas stains were grey, of course. Matt varnish will go a good way to reduce the gloss of the roundel transfers, although discerning modellers will want to change the colour of these to a more correct tone. It is quite easy to overpaint the transfers on their backing with Humbrol paint mixed to the correct shade which is, of course, an easier way to seek correction than attempting to overpaint them once they are applied on the model.

During the winter of 1940-41, when the Defiants were most active as night fighters, a

Continued on next page

Lower triangular section on starboard side
transparent



Close-up of cockpits on Defiant target tug.

↑ side panel folds down

PROFILE—Continued

variety of fuselage roundels were in evidence. Red and blue on fuselage sides were not uncommon, the usual yellow-red-white-blue standard, and 264 Sqn. carried these with the white ring overpainted black. N1733: O-PS had these along with red codes and serials which came into use in the Spring of 1940. They replaced the mid-grey as carried by N3444:R-PS which had the yellow-black red roundels referred to.

Following their replacement by Beau-fighters and Mosquitos in the night fighting role, a handful of Defiants found new front-line employment for nine months in 1942 as air-sea rescue aircraft. For this duty they carried an "M" Type dinghy packed in a tubular container under either outer wing

panel. For this role the aircraft reverted to their 1940 dark green and dark earth/duck egg blue finish, squadron codes also being this colour, as on N1623 and T3929 which were coded AQ. Red-white-blue roundels were carried beneath the wings.

It was decided in 1940 to halt development of the Defiant as a fighter and consider its application to other roles. Finally it was chosen to replace the Lysander and Henley target tugs. Two marks of target towing Defiants were produced. Mk 1 target tugs were new aircraft built for this unexciting yet most important role, whereas the T.T. Mk. 3s were fighters converted into target tugs. Both marks were

Defiant TT.Mk.1 DR967, with tropical filter under the nose.



externally similar and offer an opportunity to convert the Airfix kit into target tug configuration.

Firstly the turret mounting must be cut away and the side of the well cut square to support the rectangular side panels and cockpit cover, which can be made from folded celluloid. The combing aft of the turret well should next be removed and the rear fuselage top decking remaining must be cut and smoothed flat. Both of the modifications are best undertaken before fuselage assembly commences. A new combing—easily shaped in wood—must be fixed upon the rear fuselage.

Towing hook

After fixing the front cockpit cover in place the narrow space between the front and rear canopies needs filling by a bridge-like structure, which can be shaped from wood or spare plastic. From the latter the radio mast can also be made. Beneath the rear cockpit should be fitted the support and the hook from which the cable to the drogue may be fastened. Beneath the rear fuselage was fitted the long drogue box, which can be shaped from wood.

On a tapering tubular structure, protruding immediately aft of the rear cockpit



Nose of tropicalised version, with revised exhaust stacks.

on its starboard side, was placed a wind-driven winch. Its four blades were placed on the tip of the tube and faced forward when in use, downwards at other times.

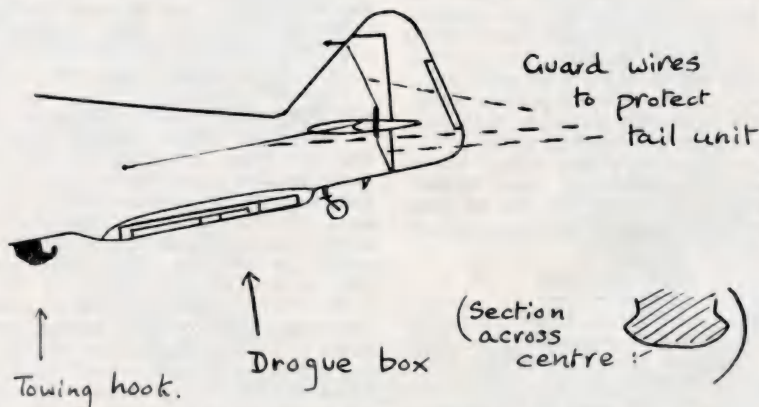
To safeguard tail control surfaces from fouling by the towing cable a metal guard was placed at the tailplane tips. Wires stretched from its upper tip to a point immediately above the fin flash, and from its lowest tip to the base of the rear fuselage. The bar holding the special frame for the wires passed through the elevator tips. Wires on the model need to be represented by extremely fine threads. Further guard wires led from the tailplane to the fuselage.

Two further simple modifications which will produce a more interesting model concern the nose of the Defiant target tug. Examples used overseas had a filter in the enlarged intake beneath the nose which can easily be made from a wooden block. Exhaust stacks on the later Defiants were of modified shape with flared orifices, again easy to make.

Scheme B finish

Defiant target tugs were finished in dark green and dark earth to Scheme B, and carried the 1 ft. 6 in. wide sky band encircling the rear fuselage, as on fighters. The rear fuselage serial was black, roundels and fin flashes standard. The undersurfaces of these aircraft were painted with black and yellow stripes. Suitable serial and code letters for a TT.Mk.1 are DR878 with M1:E in white (M1 ahead). Amongst the TT.3s were L6954 of 2 AGS Dalcross, with "72" in white ahead of roundel, and N3313: G1 (white) of No. 2 (0) AFU Millom.

M. J. F. Bowyer.



Details of towing hook, drogue box and tail unit guard wires.

SOME NEW BOOKS

Reviewed by
THE EDITOR

Mine of information

GERMAN AIRCRAFT OF THE FIRST WORLD WAR, by Peter Gray and Owen Thetford. Published by Putman & Co. Ltd., 42 Great Russell Street, London W.C.1. Price 84s.

ONCE again, Putman have produced a book which is, to say the least, a mine of information for the modelmaker and aerophile alike. To have such a complete guide to German aircraft of World War I is of great use as, up to now, there have been few volumes on the market to cater for this all-important era in the development of aviation.

A vast amount of new and interesting material has come to light with the publication of this book, much of which must have come from private German sources. Over 500 aircraft are described and illustrated, mostly in full detail for the more common types and photographic representation for those that did not reach squadron service or were not produced in large numbers.

Putnam's are now setting an obvious style to all of their volumes of aeronautical interest. We welcome this as it is a great help to easy reference and hope that this volume will be the harbinger of many more on the same period of aviation history.

Story behind diesels

DIESEL LOCOMOTIVES, published by Ian Allan Ltd., Craven House, Hampton Court, Surrey. Price 3s.

"DIESEL LOCOMOTIVES" describes in 40 fully illustrated pages how diesel locomotives function, their engines, transmission and controls and their working both on British Railways and abroad. This latter section of the book reads like a publicity hand-out which is perhaps understandable, since the book has been published with the co-operation of the B.T.C. and the Locomotive and Allied Manufacturers' Association of Great Britain. Nonetheless the book will be of great interest to the amateur railway enthusiast.

For air fans

AEROMODELLER ANNUAL 1962-63, published by the Model Aeronautical Press Ltd., 38 Clarendon Road, Watford, Herts. Price 10s. 6d.

ALTHOUGH this book is not directed at the plastic modelling fraternity, its

158 pages contain a great deal of interest for all those connected with model aircraft. From reports and reviews on the latest miniature engines, to structures and aerodynamic refinements in flying models, this book has contributions from the very pick of the international authors who contribute to many of the world's leading modelling magazines.

For general interest there's an article on the two man-powered aircraft, that from Southampton University and the Puffin made at Hatfield. The results of national and international model contests held during the year are at the end of the book.

20 years late!

ABC BRITISH RAILWAYS COACHES, (3rd edition), by G. M. Kichenside. Published by Ian Allan Ltd. Price 2s. 6d.

IT is a pity such a book as *ABC British Railways Coaches* was not published 20 years ago to cover the rolling stock of the four pre-nationalisation railway companies. So little information in popular form has been published on coaching stock, a subject no less interesting than the motive power that hauls them. The *ABC British Railways Coaches* is an excellent little publication covering all British Railways standard locomotive-hauled passenger train rolling stock built since 1950. The 64 pages carry very full descriptions with both line and half-tone illustrations. Thoroughly recommended at 2s. 6d.

Not just a catalogue

RECONNAISSANCE AND BOMBER AIRCRAFT OF THE 1914-1918 WAR, compiled by W. M. Lamberton. Published by Harleyford Publications, Letchworth, Herts. Price 50s.

COMPLEMENTARY to the earlier book on fighter aircraft of the 1914-1918 war this book completes, for the solid model builder, a set of drawings and details together with an ample selection of very good reference photographs of almost all of the land-based aircraft used during that period on both the Allied and German sides of the lines.

We often feel that this aspect of aviation history has not been given enough prominence by the manufacturers of plastic kits, but with the acquisition of these two excellent books the more advanced modeller can at least make an attempt to do the job the hard way.

This latest Harleyford publication is a comprehensive and well balanced account of the types of aircraft in common usage and not just a catalogue of bits and pieces as some of the other works of reference on this subject. We like the way in which the information is neatly laid out and, of course, the 1/72nd scale plans are excellent in their detail and accuracy.

Paper back edition

RAILWAY RACE TO THE NORTH, by O. S. Nock. Published by Ian Allan Ltd. Price 6s.

IAN ALLAN have now published a paper back edition of O. S. Nock's *Railway Race to the North*, the main difference being the smaller number of illustrations, the binding and, of course, the reduced price. The latter is a most welcome feature in view of the increasing number of high quality and consequently highly-priced railway books published today.

It is clear to see why O. S. Nock's book has been chosen for a paper back edition. The story is not only of interest to the railway enthusiast and historian, it is sufficiently entertaining to sustain the interest of even the most cursory bookstall browser and paper back reader. The author covers every detail of this thrilling contest of the Victorian Age to make it a most absorbing and fascinating story.

A real "must"

ANNALS OF BRITISH AND COMMONWEALTH AIR TRANSPORT, by John Stroud. Published by Putnam, 42 Great Russell Street, London, W.C.1. Price 84s.

WE have nothing but praise for this excellent work by John Stroud and we congratulate both the author and his publisher for producing such a valuable work of reference for the air historian. Although this 673 page book has only been in our office for just over a month we wonder how on earth we have managed without it before! We have even tried to present it with problems which have foxed us many times about various dates and other historical information, but sure enough this book has the answer, and in a surprising amount of detail, too.

It is a complete record of the progress of British and Commonwealth civil aviation from 1919 to the present day, each significant date is put down in order and each year has a summary in the heading giving an outline of the most important events that took place. There are many maps showing the routes taken by the various airliners over the years and most of the

photographs have their reference numbers in the caption. This will be a great boon to aviation writers, we have no doubt, but we wonder at the same time whether or not the rest of the aviation-minded readers of this book will write to the companies concerned detailing their requirements by number!

Another valuable reference contained in the rear of the book is a detailed list of the fleets of aircraft employed by many of the more important British and Commonwealth airline operators. Although the date of acquirement for each aircraft is given, we wonder if it would not be asking a little too much of John Stroud to include the eventual date of the demise of many of these historic aircraft as well.

A truly magnificent work of reference and one which cannot fail to find a place in any aeropile's library.

Fascinating story

THE COUNTY DONEGAL RAILWAYS, by Edward M. Patterson, D.Sc., M.R.I.A. Published by David & Charles (Publishers) Ltd. and distributed by Phoenix House Ltd. Price 30s.

THE County Donegal towards the end was, in some respects, the most up-to-date railway in the country. Practically all passenger services were diesel hauled and all rolling stock was fitted with continuous brakes and auto-couplings. Unfortunately, these facts were not enough to save the railway, although they undoubtedly contributed towards it outlasting other narrow gauge Irish railways by several years.

The fascinating story of this pioneering railway is ably told in Patterson's book. It has 157 pages of text, tables, diagrams and maps, plus 16 pages of plates covering every aspect of the history and operation of the railway, over a span of 100 years until the closure on the last day of 1959 and the subsequent disposal.

Background to boating

SAILING FOR A LIVING, by Basil Greenhill. Published by Percival Marshall & Co. Ltd. 19 Noel St., London, W.1. Price 5s.

SAILING for a Living is intended to give background to the many amateurs who today sail boats for pleasure. It describes the life, livelihood and tools of the trade of the men who, in days not so long ago, fished and carried cargoes in sailing boats not so vastly different from the pleasure yachts of today. This is a paper-back book of 74 pages with six chapters, several pages of plates and some delightful pen sketches by the author's wife.

LAYOUT REALISM

by Alex Bowie

A CIRCUIT that is quite popular is one with a terminal station and one passing station, on a circle track. But I have never yet figured how a *non-push-pull* train leaving the terminal can get back to it in normal formation, without there being a complete reshuffling at the passing station.

In other words, the passing station must be used as a terminal at some stage in the operations. And this, to me, seems to defeat its whole object.

Logically, the train should leave its terminal, reach the passing station and then go to an imagined destination. It should appear again, a return ticket later, travelling in the opposite direction, *i.e.*, back to the terminal.

For this objective, some modellers introduce a reversing loop. But it usually has the

disadvantage that it clutters up the centre of the room, interferes with operating space, and is unrealistic in appearance. Personally, when operating, I hate being cooped up like a chicken in a cage, or ducking under baseboards in order to get to another part of a layout.

A compact reverse loop

It doesn't *have* to be so obtrusive. In these days of progressive thinking in railway modelling, quite a few enthusiasts are now accepting that a curve need not be of large radius, provided that it is out of sight. Some of those American locos, with more coupled wheels than a caterpillar has feet, can manage 18 inch curves. A few Continentals can manage to get ten coupled wheels around proprietary curves, with flanges on each wheel.

And though I'm afraid that most *scale* British prototypes haven't got as far as that yet, the proprietaries can manage about 15 inch radii quite easily. A 15 inch reversing loop takes up only 30 inches of space, and on a medium to large layout can be accommodated quite nicely.

Now look at Fig. 1. This shows a small radius reversing loop tucked into the corner of a layout. It can be screened off, or disguised with hillside scenery, but should not be *totally* enclosed by a covered tunnel, because accessibility is important. The points should be well exposed.

A loop of any kind solves a problem but, like most solutions, it introduces problems of its own. Mechanically, it is straightforward, but electrically there are quite a few snags. Study Fig. 1 again.

The loco is doing quite nicely until it gets back to the main line at X, but when it reaches X there will be a bit of a *contretemps*. The loco is now travelling in a reverse direction, and therefore the polarity of the track X must be changed.

Most boffins take care of this with a battery of switches, either stopping the train on the loop while they think things over, or by switching just before the train gets back to the main line.

However, as the points have to be changed also, it is possible to parallel switches to the point-operating mechanism, so that polarity is automatically reversed.

But when the train circles the main line and reaches point Y, as in Fig. 2, there is more trouble, and more switching to introduce, because it will be seen that the polarity of the reversing loop will have to be altered.

The net result will be a complicated

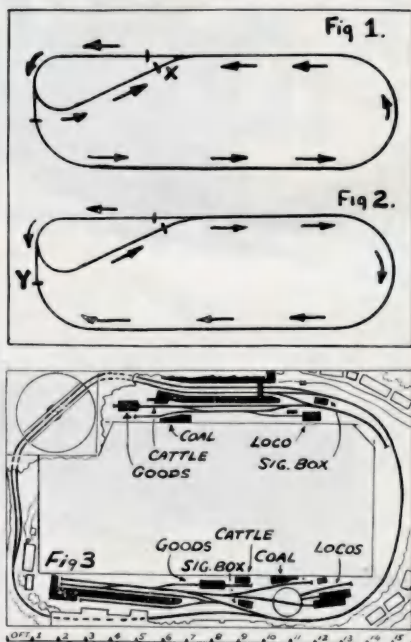
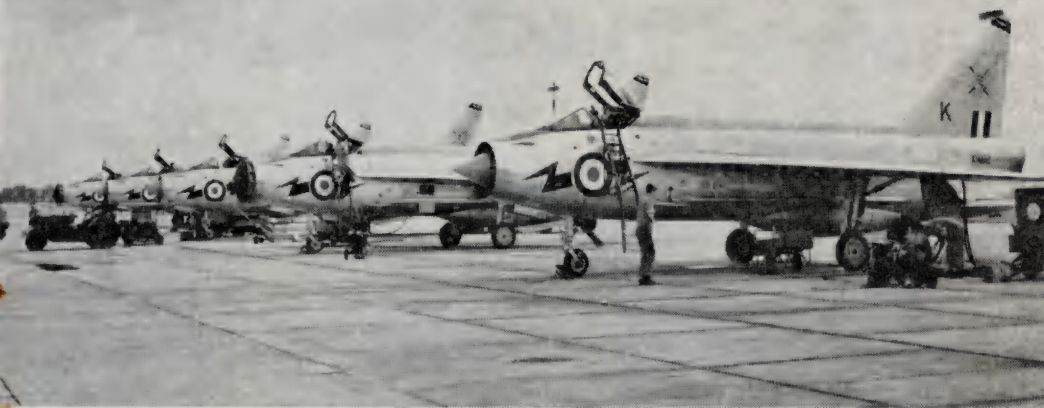


Fig. 1: A reverse loop can be quite compact, but you have to cope with electrical problems. This shows how a train is faced with reversed polarity when coming out of the loop. Fig. 2: And again, after circling the track. Both problems are overcome with switches—and some careful thought. Fig. 3: A layout with a turntable. This eliminates pointwork—and has its points.



Bulldog, a standard single-seater of the between-the-wars period. This all-metal aircraft, with a Jupiter engine, remained in service until June, 1936, when Treble One was equipped with the Gloster Gauntlet as an interim type before the issue of the monoplane fighters ordered under the R.A.F. expansion programme.

At the end of 1937 Treble One was honoured by being selected as the first squadron to receive the Hawker Hurricane, the R.A.F.'s first monoplane fighter, whose glorious history is now so well known. This Merlin-powered aeroplane, carrying eight machine-guns, was put into quantity production for the R.A.F. and, operating from Northolt, Treble One was soon flying these beautiful aircraft in some immaculate formations. On February 10, 1938, the then commanding officer, Sqdn. Ldr. John Gillan, brought the squadron into world-wide prominence by flying a Hurricane from Edinburgh to Northolt at 408 m.p.h.

When the Second World War began, Treble One was based at Acklington, Northumberland, and on November 29, 1939, their first victory over the Luftwaffe was achieved by the Commanding Officer, Squadron Leader (now Air Chief Marshal Sir Harry) Broadhurst, who took off in visibility of less than 100 yards and shot down a Heinkel He 111 off the coast.

With the German invasion of the Low Countries in May, 1940, the squadron returned to the south of England and operated from a number of different bases, including Northolt, North Weald and Debden. It was stationed at Croydon during the opening phases of the Battle of Britain. On July 10, 1940, Treble One destroyed three enemy bombers attacking a convoy in the Channel, and on August 15 shot down four Messerschmitt Me 110s raiding Croydon. Severe losses were sustained by the squadron, but when in

Line-up of Lightnings, which now equip Treble One Squadron.

September it was moved to Scotland for a rest and a re-fit after intensive activity, it had claimed nearly a hundred enemy aircraft.

In April, 1941, the squadron's Hurricanes were replaced by Supermarine Spitfires, and three months later moved southward again—to North Weald—and took part in offensive sweeps (known as "rhubarbs") over the Channel, Occupied France and Belgium. This sterling work was maintained up to November, 1942, when Treble One was ordered overseas—to North Africa. There it operated under the North-West African Air Force from Maison Blanche, near Algiers, and later from Bone. The defence they put up soon convinced the enemy that its attacks were too expensive, and the Spitfires then flew on offensive sweeps between Beja, Tunis and Bizerta, with later moves to Souk-el-Arba and Souk-el-Khemis. Until June, 1943, Treble One flew in North Africa, becoming, with 52 victories, the top-scoring squadron of the Tunisian campaign. It fought its last big battle over the Gulf of Tunis on May 1, when it destroyed seven enemy aircraft.

The squadron then went to Sicily, via Malta, and came under the control of the Desert Air Force. Continual air cover was provided by Treble One for the Salerno landings, and it then moved into Italy, making extensive sweeps against the retreating enemy. In May, 1944, the squadron claimed its 200th victory of the Second World War. It gave close support to the Eighth Army, and in July moved to Corsica. From there escort flights were made over the Italian mainland, and also over the French coast in preparation for

Continued on page 254



No. III SQUADRON—Continued

the landings of August 15. In France the squadron flew on strafing missions and destroyed large numbers of enemy vehicles. It operated from Bron, near Lyon, and from La Jasse, and was moved back to Italy on October 2, 1944, to Peretole, near Florence. On November 20, for the first time since 1918, Treble One carried bombs, their Spitfires being fitted to carry a 500-pounder under the fuselage. Gun positions and enemy-occupied buildings were attacked, and during December 48 tons of bombs were dropped. In the next few months Treble One's Spitfire Bombers, including some "blaze-bombs" in their armament, attacked a great variety of targets in northern Italy.

When Germany capitulated on May 8, 1945, the squadron went to Klagenfurt, Austria, as part of the occupying forces, but in September, 1946, returned to Italy (Tissane).

On May 16, 1947, Treble One was reduced to a number-plate only, and from February, 1949, until it was reformed at North Weald on November 1, 1953, was linked with No. 66 Squadron.

On assuming its separate identity, No. 111 Squadron received Gloster Meteor F.Mk.8 twin-jet single-seat fighters, and received its Hunters (F.Mk.4s) in June, 1955. The F.Mk.6s were introduced in November, 1956, and the saw-tooth version in 1958.

On August 8, 1955, the Commanding Officer, Squadron Leader R. L. Topp, flying a Hunter F.Mk.4, repeated the sensational flight which Squadron Leader Gillan made from Edinburgh to Northolt in a Hurricane in 1938—but Topp flew at

An Armstrong Whitworth Siskin, with which No. 111 Squadron was equipped in 1924.

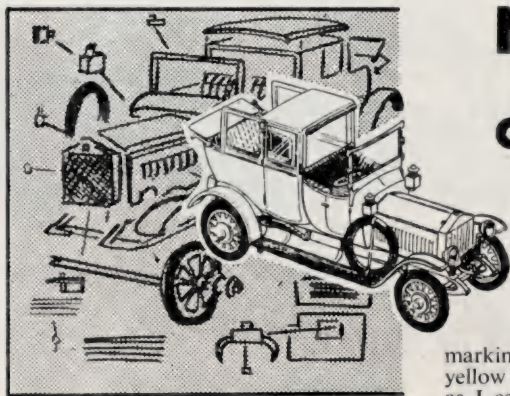
717 m.p.h. and took 27 min. 46 sec.!

For four consecutive years (1957-1960) the squadron was, of course, the R.A.F.'s leading aerobatic team and a story of this period could fill several books. Its familiar all-black Hunters gave countless breathtaking public displays, the "Black Arrows", as they became known, being awarded the Britannia Challenge Trophy for 1959.

Following Treble One's re-equipment with Lightnings in 1961, No. 92 squadron took over its aerobatic duties. Now based at Wattisham, Treble One squadron is at present commanded by Squadron Leader K. A. C. Wirdnam and is taking an active part in the NATO defence role required of front-line squadrons today.

Airfix at the Racing Car Show

AIRFIX will be exhibiting (on stand No. 41) at the forthcoming Racing Car Show, at Olympia. Their stand will feature a working model layout of a circuit based on Mallory Park and built from Airfix's Motor Racing range. The Motor Racing range, 1 : 32 scale car kits and many other Airfix items will be on sale, and visitors purchasing an Airfix product will be entitled to compete on the circuit for the Show lap record and a complete free outfit. The circuit will be equipped with electric timing and every contestant will receive a certificate recording his best lap time.



Three new aircraft

Three models from Aurora have appeared on the market. They are a Grumman F4F Martlet (or Wildcat, if you wish), a Japanese Zero (quoting the box label) and an SBC-3 Helldiver. The first is to 1:72 scale, and the other two to $\frac{1}{4}$ scale.

The Wildcat is a top-rate model. The seventy-second scale fanatics will be pleased with it as, selling for 4s. 11d., it comes well within the range for modifications and its quality is well up to the best in the business.

There are, in fact, no gimmicks, the elevators don't move, the wheels don't retract; it's a straightforward job. There are 31 parts, which fit together very well. The plastic is dark blue, and the markings supplied are for the later part of World War II. One small point of criticism concerns the way in which the positions of these markings are engraved into the plastic in a "crackle" finish. Most modellers will want to rub these down with wet and dry paper before painting, as they are a little too prominent. Apart from that there can be no criticism at all.

The Japanese Zero, on the other hand, is very much the opposite! There are many things wrong with it, from the name on the box onwards. The wing section is too thin, the rivet detail looks the equivalent size of dinner plates, the undercarriage doors are too thick and form part of the long range fuel tank and there's no cockpit detail. Still, this is the first $\frac{1}{4}$ scale Mitsubishi A6M Zero and, although not a particularly excellent model, it can, with a little patience, be modified into something worthwhile.

The thing that took my attention most of all was the suggested colour scheme. The fuselage is all-yellow, as are the wings and tail unit, and the plastic is actually moulded in this colour. The engine cowling, so the instructions say, should be red and the

New kits and models

LATEST PRODUCTS ON THE MARKET OF INTEREST TO MODELLERS

markings have a white instead of the usual yellow circle round the "meatball". As far as I can find out this colour scheme was only used on early prototype aircraft, and on some used in the Chinese campaign, and not, as is suggested, in general use in the Pacific war. What a grand target they would have made for trigger-happy gunners! There are 23 parts to the kit and it sells at 6s. 6d.

What the Zero lacks in detail the SBC-3

Continued on next page



Top to bottom: Aurora Japanese Zero; Aurora F4F Wildcat; Comet Hiller X-18.

New kits and models—Continued

Helldiver makes up for, as this model has all the moving parts you really require for the $\frac{1}{4}$ scale model. There are 64 parts, a detailed cockpit, engine, wheels, retracting deck arrester hook, and the elevators are linked so that, when one is moved, both act in unison.

There was a great deal of "flash" on this kit, unlike the other two, but this can be easily cleaned away with a sharp knife. The criticism levelled at the Wildcat is again in evidence and an abrasive paper will have to be used to clean up the fuselage and wings prior to painting or otherwise the "crinkle" will show through when the markings are applied. Why do model manufacturers have to do this sort of thing when a properly drawn colour guide on the instruction sheet would be so much better?

Although the other two Aurora models are now manufactured in this country the SBC-3 Helldiver comes direct from the States and can be obtained from B.M.W. Models, price 11s. 9d. *A.W.H.*

Unusual model

Another aircraft model available from B.M.W. Models is a Hiller X-18—ever heard of it? This unusual model is an approx. 1:72 scale kit by Comet. For those who don't know, the Hiller X-18 is an experimental vertical take-off aircraft of the tilting wing configuration, which is under test in the United States. It has met with some success and relies on a principle that has been discarded by the designers of VTOL aircraft on this side of the Atlantic. For those with a large collection of models all to the same 1:72 scale this will be a useful addition as it portrays a means of transportation not available in any other model form and interesting to have as a comparison to the more conventional types.

As a model it is excellent. The 53 parts are perfect fits and we can truly say that there are few models to compare with the smoothness of the way in which the mechanism of the tilting wing and engines worked. The side windows of the cockpit were rather tricky to fit, as they did not have a flange round the inner side as is usual, and had to be laid exactly in place with the absolute minimum of cement to prevent marking.

With these thoughts of excellence in mind it was a bit of a shock to find that, on comparison with photographs, this model was not accurate. The chief criticism was the tail unit, where the stabilising jet which projects from the tail unit should have been a separate item, as the jet pipe comes from the rear fuselage and not from the tail itself. The actual propellers too, are in need of

some attention as there is a tremendous amount of detail on the prototype not shown in the model.

The transfers supplied are reasonably good. The model maker buying this kit should, however, obtain photographic evidence of the position of the markings before painting, as the information supplied by the manufacturer is not strictly correct. In the photographs I had available there appeared to be a considerable amount of dayglow on the nose, wing tips and tail, which is all to the good as it made a much brighter-looking finished product.

In all, Comet's Hiller X-18 is a good kit. When purchased from B.M.W. Models, the price is 11s. *A.W.H.*

3 in 1 Fords

Brief mention was made last month of two new A.M.T. 3 in 1 1:25 scale car kits—the '49 Ford Club Coupé and the '50 Ford Convertible, obtainable from B.M.W. Models, Wimbledon, price 17s. 11d. and 24s. 6d. respectively. We have since had the chance to assemble these kits and can now give more details.

As is probably now well known, these A.M.T. kits can be made in one of three ways; stock, customised or stylised. We chose to customise the '49 Ford Club Coupé and construct the '50 Ford Convertible strictly stock. Construction presented no problems, since all parts fitted perfectly with great accuracy. The customising features, such as chrome Cadillac engine, alternative



Top to bottom: Jo-Han 1962 Chrysler; A.M.T. '49 Ford Club Coupé; Aurora E-type Jaguar.

chrome wheel discs and bucket seats, were added to the '49 model. There was even a television set to add to the '50 model!

For styling the '50 Ford Convertible many extra parts are included in the kit, including three alternative front body pressings. They can easily be cemented over the existing bodywork and a tube of special plastic body filler is included in the kit to ensure a perfectly smooth joint between parts. The instruction give a wealth of ideas how these alternative parts can be used, and for the individualist, there are unlimited possibilities. The quality, finish and fit of each part is excellent. One feature we particularly liked was the finely-detailed clear plastic headlamp lenses and the red tail lights.

N.S.

1962 Chrysler 300

Also received from B.M.W. Models is a new American Jo-Han "Build 3 Ways" 1962 Chrysler 300 Hardtop. This kit enables stock, race or custom car assembly in the now familiar American plastic car kit fashion. Construction details follow established practice with a one-piece body moulding, finely-detailed interior, engine and chassis. The chassis is readily detachable by means of four screws. Gimmick features include a telephone and record player for the interior and optional jewelled wheel discs.

The plastic parts have a neat, clean finish and fit well, while the "shiny" parts have an attractive smooth chrome look about them. Tyres appear to be moulded in black plastic and are reversible, with white side walls on one side. The wheels fit extremely well on the metal axles. The finished 1:25 scale model is a good looking representative of the current American sleek styling.

N.S.

Three cars and a kit

Four new Dinky Toys have just made their appearance. They are a police-controlled crossing (3s. 6d.); Jaguar Mk 10 (5s. 6d.); Singer Vogue (3s. 11d.) and Superior Criterion Ambulance with flashing light (8s. 9d.).

The police-controlled crossing comprises a high-impact polystyrene kit of a traffic island, two keep left bollards, a lamp standard and a policeman in a point-duty box. The policeman can be turned around in his box by means of a knurled knob at the base. The kit is very easily assembled and can be glued together if desired.

Dinky's Jaguar Mk 10 has an opening boot, with travelling trunk and valise, plus Prestomatic steering, interior seating, windows, steering wheel and four-wheel suspension. It is finished in polychromatic blue. The Singer Vogue also has steering, suspension, windows, seats and steering wheel,

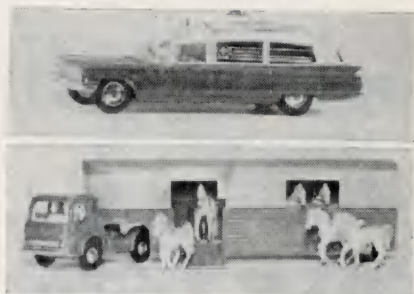


Top to Bottom: Matchbox Mercedes 220SE and Ford Fairlane police car; Dinky Superior Criterion ambulance, with flashing light, Mk 10 Jaguar, Singer Vogue and police-controlled crossing.

and is finished in metallic green/grey.

In our October issue we described the new Dinky Toys Superior Criterion Ambulance. Elsewhere in this issue appear details of a somewhat similar Corgi Superior with flashing roof lights. Dinky have now introduced another variation on their Superior Criterion model—all rather confusing for the collector! This one has a flashing roof

Continued on next page



Corgi's Superior ambulance and circus horse transporter.

New kits and models—Continued

light worked from a small battery, in conjunction with a cam on the rear axle. This latest Dinky version still has the opening rear door, but the space inside is now occupied by the flashing mechanism and battery. In most respects it is identical to Dinky's earlier version. *D.R.*

1:25 scale E-type

Latest addition to the Playcraft Aurora range of plastic kits is a 1:25 scale model of the E-type Jaguar coupé. This fine kit has a wealth of detail. The cockpit is complete even to a rear view mirror and hand brake. The bonnet hinges forward, in true-to-prototype fashion, to reveal a beautifully detailed engine, and all suspension details are faithfully featured.

The body of the car is moulded in red, while all engine parts and trim are richly chromed. Intricate triple-laced wire wheels with knock-off hubs, add a fine touch of realism to the model, which costs 14s. 6d. *D.R.*

Five flashing lights

In our October issue we carried a review of the new Dinky Toys Superior Criterion ambulance. Corgi, soon after, announced a Superior, and the two models form an interesting comparison. The Corgi model has five flashing roof lights, which all work from one bulb, but it lacks the steering, opening rear door, stretcher, "patient", and crew of the earlier Dinky model.

The bulb of the Corgi model is operated, via a cam action on the rear axle, by a battery which is held in an easily-detachable container fitting snugly into the underframe. The lights are controlled by a simple on/off switch on the chassis, and a most realistic effect is obtained as the vehicle runs along with two amber lights flashing front and rear and the red beacon flashing in the centre of the roof.

Corgi's ambulance is 4½ inches long and is finished in scarlet and cream with "Ambulance" signs in its translucent side windows. Price is 8s. 9d. and either an Ever Ready U.12 or Vidor V.0028 battery, which is not supplied with the model, is required to power the lights. Operating instructions are included.

Corgi have also made a further addition to their series of Chipperfield's Circus vehicles, with the introduction of a circus horse transporter, complete with six horses. The prime mover of this articulated vehicle is modelled on the latest Bedford "TK" cab unit and is fitted with steering wheels, seats, Glidamatic spring suspension and the deep panoramic windows which are such a notable feature of the prototype. A new Corgi feature is the realistic addition of rear-view mirrors to each side of the cab. Finished in Chipperfield's blue and red livery, this attractive 10¼ inch long model sells for 18s. 6d.

The entire range of Corgi Toys and kits is described and illustrated in the new 1962/63 edition of the Corgi catalogue. Priced at 3d., it comprises 32 colourful pages. *D.R.*

Mercedes with opening doors

Coincident with the news that Lesney Products are to build a new factory costing over £750,000, come details of the latest arrivals in their popular Matchbox range. First there is a Mercedes-Benz 220SE coupé. Though scarcely 2½ inches long, this intriguing little model has opening doors, complete with armrests and window "winders", four seats, steering wheel, true-to-prototype curved windows (open on either side) and is finished in maroon double-baked enamelled paint. To OO scale, this model sells for 1s. 9d.

Also new is a Ford Fairlane police car, another OO scale model. Authentic state police transfers adorn the bonnet and side panels and full seating is provided, together with interior fittings. Finish is in an attractive shade of blue and there is an imitation red alarm beacon on the roof. The model measures 2½ inches long and sells for 1s. 9d. *D.R.*

"Grain of wheat" bulbs

B.M.W. Models have submitted one each of the four different coloured "grain of wheat" electric light bulbs, green, red, yellow and white, as fitted to their colour light signal reviewed last month. These bulbs are extremely small, measuring approximately ¼ inch long by ¼ inch in diameter, and they are each fitted to about 6 inches of flex. They operate on up to 16 volts in series. *N.S.*

Readers write . .

LETTERS TO THE EDITOR

Broken-hearted

I have just made up an Airfix Wellington BIII kit and, according to the notes accompanying it, I believe there were 11,000 Wellingtons made during the war. The model in your kit has the squadron registration letters AA-D. I thought you might be interested to know that these were the markings of No. 75 (New Zealand) Bomber Squadron, and I was the tail-gunner of the original aircraft of this number that operated over Germany.

I am broken-hearted that you chose to produce a model of the BIII, as the first of this series to operate over Germany was the IC. For your information the crew of six of the original aircraft collected between them 1 D.S.O., 2 D.F.Cs and 2 D.F.Ms.

R. J. HEALEY, Billericay, Essex.

Motor Racing model

As the owner of an Airfix Motor Racing set I would like to make a suggestion for an improvement by asking for a different system of wiring from the transformer/track plug/controllers.

On my set, I found this wiring got into tangles and, being already on the short side, made corner marshalling by the drivers a difficult business. I have eliminated this problem by extending the controller's leads to two yards and fitting 2 amp. two-pin plugs to the ends. These plug into two sockets on a switch block, which is connected by a further yard of wire flex to the transformer and track plug.

With this arrangement the switch block with sockets can be placed in the centre of the track and the controller cables brought out at each end, which in my opinion is a big improvement.

It should be pointed out, however, that care must be taken when connecting the track plug to the transformer, to ensure that the wire is on the correct pin of the plug.

MALCOLM A. WOLF, Ingatestone, Essex.

Automatic lighting

Having recently purchased one of the Airfix Renault Dauphine kits, I thought readers might be interested in a few conversions I have made.

I have fitted a steering mechanism to it, based on the same kind of system as described in the September issue of AIRFIX MAGAZINE.

I also carefully filed away the flat pieces of plastic on to which the head-lights are

LETTERS to the Editor can only be answered in the magazine. However, we are always pleased to receive your comments and pictures which will be considered for publication. Readers whose letters are published each receive a free Airfix kit of their choice. Submitted material and pictures can only be returned if accompanied by a stamped addressed envelope, and the Editor cannot accept responsibility for safe keeping of any such contributions, neither does he necessarily agree with comments expressed by correspondents in the letters column.

glued, then fixed two small bulbs on to the inside of the body with plasticine, the bulbs partly protruding through the filed holes. (The bulbs are easily obtainable in lighting kits).

Then I wired up a circuit between the bulbs and two U12 batteries, placed in the back of the car. The switch I made was a very simple one. I cut out and hinged the boot door, and fixed a brass strip on it, coming from the bulbs. I then fixed another strip to the inside of the rear number plate, connected to the batteries.

When the boot is closed, contact is made and the "head-lights" come on.

ALAN JOBSON, Erith, Kent.

Model missiles

If model missiles are required on model aircraft, they can be made from the plastic stems on which the aircraft parts are attached. These can easily be shaped into Firestreak or Sidewinder missiles, and when painted look quite authentic.

Rockets and refuelling probes can also be shaped from these stems. The pylons to hang these from the aircraft can be made from aircraft wings which can easily be cut to the shape required with a pair of wire-cutters and shaped with a sharp knife.

F. H. W. WEST, Sawston, Cambridge.

Still going strong

I would like to congratulate Mr. M. J. F. Bowyer on his recent article about Anson trainers (October issue). However, I feel that I could not let it go without informing him that here, at Elstree, we have the last MK1 Anson still in commercial service in this country.

G-AMDA was built in 1938 (Const. No.:—N4877) and is powered by two Armstrong Siddeley Cheetah 19 Engines. Golf-Delta Alfa is fitted with smooth-contour cowlings and a transparent nose, but has no longer a gun turret in these peaceful days. It is coloured silver with blue cowlings and registration on either

Continued on next page

Readers write—Continued

side of the tail fin, on the upper side of the starboard wing, and the underside of the port wing. Above the side windows on both sides of the fuselage is painted "The London School of Flying".

This aircraft was rebuilt by Avro in 1955 and is now used for pilots' twin engine conversion and is fitted to carry a Williamson Eagle 9 camera for aerial survey work.

This aircraft will be leaving us, as the London School of Flying are replacing it with a MK 19 Anson, which will be much more comprehensively equipped with regard to radio and navigation instruments.

P. WOOD, Air Traffic Control Officer,
Elstree, Herts.

Keep up the good work

I would like to fully endorse R. Cogan's request in your November issue for an Airfix kit of a seven-flank open wagon suitable for painting as a "Private Owners" wagon.

It is some two and a half years since this series of kits was started and, in all, only seven goods wagons and three other types have been introduced. I think it is time we had a few more and I would like to suggest a 12 ton goods van similar to the type built by the Southern Railway Company prior to nationalisation.

I have made up and painted some 150 Airfix kits of various types and I must say they are to me an excellent product for the price. So please keep up the good work.

E. D. RICHES, Bromborough, Wirral,
Cheshire.

Plane painting tip

One problem which confronts everyone who makes realistic plastic airplane kits is the painting of the metal frames on the canopy.

An easy, authentic and quick method which I have recently adopted is the use of auto-tape, available in 1/64 in. and 1/32 in. in red, white, blue, black, yellow and silver, price 50c. per roll (Auto World, Box 961 RC, Scranton, Pa. U.S.A., adding 35c for packing and postage).

The one drawback is that the tape is glossy only, but the method is simple and quick with no chance of error.

JOHN EVANS, Elmira, Ontario, Canada.

Companion for the B-type

I have been intending for some time to write expressing my appreciation of the excellent Airfix model of the L.G.O.C. B-type bus, which makes such a realistic replica of that famous old vehicle.

Could we please have a companion to

the same scale, in the form of a tram of the same period, preferably an L.C.C. Class E?

I am convinced that if such a kit were to be produced, it would sell even better than the bus.

B. T. COOKE, Bourne End, Bucks.

Painting poser

In the December 1962 AIRFIX MAGAZINE I was pleased with Mr. Bowyer's most useful painting details of the B-17. Your mention of the difficulty of reproducing the correct shades for some colour schemes brings me to an idea that would be most useful to all modellers. If model paint manufacturers would start producing the *exact* shades ready to paint on, they would alleviate what is at present the purist modeller's main problem. These shades *can* be mixed, of course, from standard colours, but in many cases not without great difficulty.

Another finish which I simply cannot reproduce to my satisfaction is that found on many wartime German, Japanese and Italian aircraft, for example, German bombers. These had a green paint on upper surfaces and a lighter shade "spotted" over this, merging at the edges into the same green as the base. I wonder if any readers have any ideas on how to attain this finish easily?

T. W. MUIRHEAD, Larne,
Co. Antrim.

Pen pal wanted

A reader in Czechoslovakia (Vladimir Aichelburg, of Vinohradske 83, Prague 2, CSSR) has written asking for an English pen pal who would like to exchange kits and books. Mr. Aichelburg says there are no Czechoslovakian kits, but he has some East German kits to exchange. Anyone interested is invited to write direct to the address given.

World's biggest model railway

THE *Daily Mail* Boys' and Girls' Exhibition opens at Olympia from December 28 until January 12, Sundays excepted. A B.R.M. racing car, a working model of its engine, and motor racing films will be among the features of the show.

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